Application No.: 10/040,058 Docket No.: M4065.0835/P835

**PATENT** 

DEC. 0 1 2003

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Alexander Krymski, et al.

Application No.: 10/040,058

Group Art Unit: 2878

Filed: October 26, 2001

Examiner: Not Yet Assigned

For: FRAME SHUTTER FOR CMOS APS

## RE-SUBMISSION OF REVOCATION OF POWER OF ATTORNEY AND NEW POWER OF ATTORNEY

Commissioner for Patents Washington, DC 20231

Dear Sir:

Transmitted herewith is a re-submission of the Revocation of Power of Attorney and New Power of Attorney which was filed by the Applicant on May 1, 2003, in relation to the above-captioned matter. A copy of the submission as filed is enclosed for your records. Effective immediately please change the correspondence address to Customer No. 24998 and also change the Attorney Docket Number for all correspondence associated with this application to the Attorney Docket Number indicated above.

No fee is believed to be due in relation to this submission. The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which

Application No.: 10/040,058 Docket No.: M4065.0835/P835

**PATENT** 

should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under order number M4065.0835/P835.

Dated: December 1, 2003

Respectfully submitted,

Stephen A. Soffen

Registration No.: 31,063

DICKSTEIN SHAPIRO MORIN &

**OSHINSKY LLP** 

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant

		Applicati n Numb r	10/040,058
TRANSMITT	AL	Filing Date	October 26, 2001
FORM		First Named Inventor	Alexander Krymski
(to be used for all correspondence afte	er initial filing)	Group Art Unit	2878
·	<del>.</del>	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submis	ssion	Attorney Docket Numb	per M4065.0835/P835
	ENCL	OSURES (check all	that apply)
Fee Transmittal Form	Assignme (for an App	ent Papers dication)	After Allowance Communication to Group
Fee Attached	Drawing(s	s)	Appeal Communication to Board Appeals and Interferences
Amendment/Reply	Licensing	-related Papers	Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
After Final	Petition		Proprietary Information
Affidavits/declaration(s)	Petition to	o Convert to a Provisional	Status Letter
Extension of Time Request		Attorney, Revocation f Correspondence Address	Other Enclosure(s) (please identify below)
Express Abandonment Request	Terminal	Disclaimer	
Information Disclosure Statement	Request	for Refund	
Certified Copy of Priority Document(s)	CD, Num	ber of CD(s)	
Response to Missing Parts/ Incomplete Application	Remarks		
Response to Missing Parts under 37 CFR 1.52 or 1.53			

May 1, 2003

Signature

Date

Application No.: 10/040,058 Docket No.: M4065.0835/P835

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Alexander Krymski, et al.

Application No.: 10/040,058

Group Art Unit: 2878

Filed: October 26, 2001

Examiner: Not Yet Assigned

**PATENT** 

For: FRAME SHUTTER FOR CMOS APS

# SUBMISSION OF REVOCATION OF POWER OF ATTORNEY AND NEW POWER OF ATTORNEY

Commissioner for Patents Washington, DC 20231

Dear Sir:

Transmitted herewith is a Revocation of Power of Attorney and New Power of Attorney in relation to the above-captioned matter. Also attached is a copy of the related Assignments. In addition, effective immediately please change the Attorney Docket Number for all correspondence associated with this application to the Attorney Docket Number indicated above.

No fee is believed to be due in relation to this submission. The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which

Application No.: 10/040,058 Docket No.: M4065.0835/P835
PATENT

should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under order number M4065.0835/P835.

Dated: May 1, 2003

Respectfully submitted,

Thomas J. D'Amico

Registration No.: 28,371

DICKSTEIN SHAPIRO MORIN &

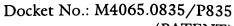
**OSHINSKY LLP** 

2101 L Street NW

Washington, DC 20037-1526

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Attorneys for Applicant



(PATENT)

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Alexander Krymski et al.

Application No.: 10/040,058

Group Art Unit: 2878

Filed: October 26, 2001

Examiner: Not Yet Assigned

For: FRAME SHUTTER FOR CMOS APS

## REVOCATION OF POWER OF ATTORNEY AND NEW POWER OF ATTORNEY

Commissioner for Patents Washington, DC 20231

Dear Sir:

The undersigned, a duly authorized representative of Micron Technology, Inc. and current assignee of this application as demonstrated by the attached copy of the assignment, hereby revokes all Powers of Attorney previously given, and hereby appoints the following attorneys and/or agents to prosecute this application and transact all business in the U.S. Patent and Trademark Office connected herewith:

Gary M. Hoffman	26,411	Ryan H. Flax	48,141	Ellen S. Tao	43,383
Thomas J. D'Amico	28,371	Richard LaCava	41,135	Gary L. Veron	39,057
Donald A. Gregory	28,954	John C. Luce	34,378	Steven I. Weisburd	27,409
James W. Brady, Jr.	32,115	Peter McGee	35,947	Peter Zura	48,196
Jon D. Grossman	32,699	Edward A. Meilman	24,735	Jeremy A. Cubert	40,399
Mark J. Thronson	33,082			Gianni Minutoli	41,198
Eric Oliver	35,307	William E. Powell, III	39,803	Michael Bergman	42,318
Laurence E. Fisher	37,131	Steven S. Rubin	43,063	Salvatore P. Tamburo	45,153
Ian R. Blum	42,336	Michael J. Scheer	34,425	Peter A. Veytsman	45,920
Gabriela I. Coman	50,515	Stephen A. Soffen	31,063	Christopher S. Chow	46,493
Catherine A. Ferguson	40,877	Christopher M. Tanner	41,518		

Docket No.: M4065.0835/P835 Application No.: 10/040,058

All attorneys of the law firm Dickstein Shapiro Morin & Oshinsky LLP and also, listed as follows:

Charles B. Brantley, III

38,086

Kevin D. Martin

37,882

Russell Slifer

39,838

Michael L. Lynch

30,871

David J. Paul

34,692

attorneys/agents of Micron Technology, Inc. as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.

Address all communications to:

Thomas J. D'Amico DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 2101 L Street NW Washington, DC 20037-1526 (202) 785-9700

For:

Micron Technology, Inc.

Michael L. Lynch

Dated: 1-22-03

#### ASSIGNMENT OF PATENTS

This ASSIGNMENT OF PATENTS (this "Assignment of Patents"), dated as of November 21, 2001, is entered into by and among Micron Technology, Inc., a Delaware corporation ("Buyer"), Photobit Corporation, a Delaware corporation ("Parent"; Parent is sometimes referred to herein as a "Seller") and Photobit Technology Corporation, a Delaware corporation and a wholly owned subsidiary of Seller ("Subsidiary"; Parent and Subsidiary are sometimes referred to herein as a "Seller" and sometimes collectively as the "Sellers").

This Assignment of Patents is entered into pursuant to Section 6.23 of the Asset Purchase Agreement dated as of November 21, 2001, (the "Asset Purchase Agreement;" capitalized terms used herein but not otherwise defined herein shall have the same meanings assigned to them in the Asset Purchase Agreement), by and among Parent, Subsidiary, Buyer, Dr. Sabrina Kemeny, Dr. Eric Fossum, Robert Panicacci and the Seller Representative.

Pursuant to the Asset Purchase Agreement, Sellers agreed, among other things, to transfer to Buyer all of Sellers' right, title and interest in and to the Acquired Assets, in exchange for the payment by Buyer of the Purchase Price and the assumption by Buyer of the Assumed Liabilities, in each case on the terms and subject to the conditions provided in the Asset Purchase Agreement.

- 1. Assignment of Patents by Sellers. Sellers hereby irrevocably and formally grant, bargain, sell, transfer, convey, assign and deliver to Buyer all right, title and interest in and to the patents, patent applications and provisional applications owned by each Seller throughout the world, together with any and all rights of such Seller associated with inventions claimed therein and/or with the applications and patents, whether or not such patents are registered with the United States Patent and Trademark Office or other comparable governmental authority of any foreign jurisdiction (including, without limitation, those patents and applications set forth on Exhibit A hereto) (the "Assigned Patents"), free and clear of all encumbrances, together with all causes of action and other rights to sue for and remedies against past, present and future infringements of any of the foregoing, together with the right to collect damages therefore, and rights of priority and protection of interests therein under the laws of any jurisdiction worldwide and all tangible embodiments thereof, to have and to hold the same unto Buyer, its successors and assigns, for and during the existence of such rights and all renewals thereof.
- 2. <u>Further Assurances</u>. Each Seller hereby covenants and agrees that from time to time and at the expense of such Seller and without further consideration, upon request of Buyer, each Seller shall and shall cause each of its affiliates to execute and deliver such instruments and documents, and take such further actions, as Buyer reasonably may request in order to sell, convey, transfer and assign to Buyer, or to record Buyer's interest in or title to, any of the Assigned Patents.
- 3. <u>Power of Attorney</u>. Each Seller hereby constitutes and appoints Buyer as such Seller's true and lawful attorney in fact, with full power of substitution in such Seller's name and

stead, to take any and all steps, including proceedings at law, in equity or otherwise, to execute, acknowledge and deliver any and all instruments and assurances necessary or expedient in order to vest or perfect the aforesaid rights and causes of action more effectively in Buyer or to protect the same or to enforce any claim or right of any kind with respect thereto. Each Seller hereby declares that the foregoing power is coupled with an interest and as such is irrevocable.

- 4. <u>Successors and Assigns</u>. This Assignment of Patents shall be enforceable against the successors and assigns of Sellers and shall inure to the benefit of the successors and assigns of Buyer.
- 5. Governing Law. This Assignment of Patents shall be governed by and construed in accordance with the laws of the United States, in respect to patent issues and in all other respects, including as to validity, interpretation and effect, by the internal laws of the State of California, without giving effect to the conflict of laws rules thereof.

IN WITNESS WHEREOF, this Assignment of Patents has been duly executed and delivered as of the date first written above.

MICRON TECHNOLOGY, INC.
By: V. S. Sares
Printed Name: W.G. SHOVER, JR.  Title: Vice PRESIDENT OF FINANCE AND
Title: VICE PRESIDENT OF FINANCE AND
PHOTOBIT CORPORATION
Ву:
Printed Name:
Title:
PHOTOBIT TECHNOLOGY CORPORATION
Ву:
Printed Name:
Title:

IN WITNESS WHEREOF, this Assignment of Patents has been duly executed and delivered as of the date first written above.

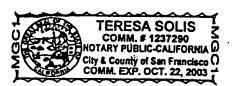
MICRON TECHNOLOGY, INC.
Ву:
Printed Name:
Title:
PHOTOBIT CORPORATION  By:
Printed Name: SABRINA KEMENY
Title:
PHOTOBIT TECHNOLOGY CORPORATION  By:
Printed Name: 5ABRINA KEMENT
Title: EXECUTIVE V. P.

### **ACKNOWLEDGMENT - PHOTOBIT CORPORATION**

STATE OF CALIFORNIA	)
	) SS:
COUNTY OF SAN FRANCISCO	)

I, <u>Teresa Solis</u>, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that <u>Sabrina Kemeny</u>, appeared before me this day in person, and acknowledged that she executed and delivered the Instrument of Assignment of Patents above as her free and voluntary act and in her representative capacity for Photobit Corporation, a Delaware corporation, acting in its representative capacity as the Chairman and CEO of Photobit Corporation., a Delaware corporation, for the uses and purposes herein set forth.

IN WITNESS WHEREOF, I have hereunto my hand and notarial seal this 21th day of November 2001.



Notary Public

My Commission Expires: October 22, 2003

#### ACKNOWLEDGMENT-PHOTOBIT TECHNOLOGY CORPORATION

STATE OF CALIFORNIA	)
	) SS:
COUNTY OF SAN FRANCISCO	)

I, <u>Teresa Solis</u>, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that <u>Sabrina Kemeny</u>, appeared before me this day in person, and acknowledged that she executed and delivered the Instrument of Assignment of Patents above as her free and voluntary act and in her representative capacity for Photobit Technology Corporation, a Delaware corporation, acting in their representative capacity as the Chairman and CEO of Photobit Technology Corporation, a Delaware corporation, for the uses and purposes herein set forth.

IN WITNESS WHEREOF, I have hereunto my hand and notarial seal this 21st day of November 2001.

TERESA SOLIS
COMM. # 1237290
FINOTARY PUBLIC-CALIFORNIA D
CIty & County of San Francisco ()
COMM. EXP. OCT. 22, 2003

My Commission Expires: October 22, 2003

## **EXHIBIT A**

Photobit Patents Issued and Pending Applications.

	Photobit Patent or Provisional Application Title	Description/Comments	PB NTR#
	PATENTS ISSUED	-	
1	Median Filter With Embedded Analog to Digital Converter	Patent #5,995,163	9601
2	Low-Voltage Common Source Switched-Capacitor Amplifier	Patent #6,049,247	9702
3	Quantum Efficiency Improvements in Active Pixel Sensors	Patent #6,005,619	9704
4	Bidirectional Follower for Driving a Capacitive Load	Patent #6,043,690	9719
5	Analog-to-Digital Conversion	Patent #6,087,970	9603
6	Low-Voltage Comparator with Wide Input Voltage Swing	Patent #6,147,519	9703
7	Programmable Analog Arithmetic Circuit for Imaging Sensor	Patent #6,166,367	9706
8	Correction of Missing Codes Nonlinearity in A to D Converters	Patent #6,255,970	9708
9	Charge-Domain Analog Readout for an Image Sensor	Patent #6,222,175	9712
10	A/D Converter Correction Scheme	Patent #6,191,714	9713
11	Active Pixel Sensor With Current Mode Readout	Patent #6,194,696	9714
12	Differential Non-Linearity Correction Scheme	Patent #6,215,428	9716
13	CMOS Image Sensor with Different Pixel Sizes for Different Colors	Patent #6,137,100	9718
14	Pulse-Controlled Light Emitting Diode Source	Patent #6,222,172	9801
15	CMOS Voltage Comparator Capable of Operating With Small Input Voltage Difference	Patent #6,184,721	9809
16	Using Single Lookup Table To Correct Differential Non-Linearity Errors In An Array Of A/D Converters	Patent #6,211,804	9813
17	Concentric Lens with Aspheric Correction	Patent #6,097,545	9816
18	Using Cascaded Gain Stages for High-Gain and High-Speed Readout of Pixel Sensor Data	Patent #6,229,134	9817
19	Lock-In Pinned Photodiode Photo-detector	Patent #6,239,456	9822
20	Ping-Pong Readout	Patent #6,204,792	9828
21	Nonlinear Flash Analog To Digital Converter Used In Active Pixel System	Patent #6,295,013	9818 9819
	PHOTOBIT/GENTEX JOINTLY OWNED IP		
1	Wide Dynamic Range Optical Sensor	Patent #6,008,486	
2	Vehicle Vision System	Patent Application Serial No. 09/001,855	
	PATENT APPLICATIONS		
1	Dead Pixel Correction by Row/Column Substitution	Patent Application Serial No. 09/031,145	9602
2	Color Interpolation	Patent Application Serial No. 09/028,961	9604
3	Double Comparison Successive Approximation Method and Apparatus	Patent Application Serial No. 09/360,294	9701
4	Digital Exposure Circuit For An Image Sensor	Patent Application Serial No. 09/298,306	9705
5	Method and Circuit for Fast and Accurate Adjustment of Integration Time for CMOS APS Cameras	Patent Application Serial No. 09/281,765	9707
6	Smart Column Controls for High Speed Multi-Resolution Sensors	Patent Application Serial No. 09/251,758	9709
7	Increasing Readout Speed in CMOS APS Sensors through Block Readout	Patent Application Serial No. 09/274,739	9710
8	Active Pixel Color Linear Sensor With Line-Pecked Pixel Readout	Patent Application Serial No. 09/252,428	9711
9	Three Sided Buttable CMOS Image Chip	Patent Application Serial No. 09/211,718	9715

	Photobit Patent or Provisional Application Title	Description/Comments	PB NTR #
10	Photodiode-Type Pixel For Global Electronic Shutter And Reduced Lag	Patent Application Serial No. 09/025,079	9717
11	Wide Dynamic Range Fusion Using External Memory Look-Up	Patent Application Serial No. 09/299,066	9720
2	Active Pixel Sensor With Mixed Analog and Digital Signal Integration	Patent Application Serial No. 09/183,389	9721
3	Look Ahead Shutter Pointer Allowing Real Time Exposure Control	Patent Application Serial No. 09/038,888	9802
14	Readout Circuit With Gain and Analog-to-Digital Conversion For Image Sensor	Patent Application Serial No. 09/264,501	9803
5	Using A Single Control Line To Provide Select And Reset Signals In Two Rows Of A Digital Imaging Device	Patent Application Serial No. 09/250,623	9804
6	High Resolution CMOS Circuit Using a Matched Impedance Output Transmission Line	Patent Application Serial No. 09/359,056	9806
7	Reducing Internal Bus Speed in a Bus System Without Reducing Readout Rate	Patent Application Serial No. 09/359,068	9807
8	RAM Line Storage for Fixed Pattern Noise Correction	Patent Application Serial No. 09/066,506	808
9	Latched Row Logic for a Rolling Exposure Snap	Patent Application Serial No. 09/261,361	9810 9812
20	Analog To Digital Converter with Internal Data Storage	Patent Application Serial No. 09/281,358	9811
!1	Low Light Sensor Signal to Noise Improvement	Patent Application Serial No. 09/359,065	9814
2	Nonlinear Flash Analog to Digital Converter Used in Active Pixel System	Patent Application Serial No. 09/161,355	9818 9819
3	Oversampled Centroid A to D Converter	Patent Application Serial No. 09/430,625	9820
:4	Over Sampled CMOS Image Sensor	Patent Application Serial No. 09/429,776	9821
25	Pinned Floating Photoreceptor With Active Pixel Sensor	Patent Application Serial No. 09/397,381 Patent Application	9823
26	Oversampled CMOS Image Sensor	Serial No. 09/430,734 Patent Application	9825
	Optical Range Finder  Color Correction of Multiple Colors Using A Calibrated Technique	Serial No. 09/429,882 Patent Application	9826
28	Migro Power Micro-Sized CMOS Active Pixel	Serial No. 09/209,982 Patent Application	9827
30	ALow Power Signal Chain for Image Sensors CMOS APS	Serial No. 09/418,961 Patent Application	9829
~ 31	Matched Color CMOS Sensor	Serial No. 09/590,785 Patent Application	9831
32	Clear Plastic Packaging in a CMOS Active Pixel Image	Serial No. 09/267,503 Patent	9832
		Application Serial No. 09/442,871	
33	Semiconductor Imaging Sensor Array Devices With Dual-Port Digital Readout for CMOS Image Sensor	Patent Application Serial No. 09/449,194	9833
34	High-Speed Sampling Of Signals In Active Pixel Sensors	Patent Application Serial No. 09/527,422	9834
35	Multi-Chip Addressing For The I <sup>2</sup> C Bus	Patent Application Serial No. 09/459,720	9835
36	Circuits larger than the max. Reticle size in deep sub micron process	Patent Application Serial No. 09/523,127	9836
37	Compensation for Optical Distortion at Imaging Plane	Patent Application Serial No. 09/354,930	9837

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	Photobit Patent or Provisional Application Title	Description/Comments	PB NTR #
38	Contoured Surface of Image Plane Array Cover Plate	Patent Application Serial No. 09/470,284	9839
39	Backside Illumination of CMOS Image Sensor	Patent Application Serial No. 09/483,362	9901
40	A Technique For Flagging Oversaturated Pixels	Patent Application Serial No. 09/505,645	9902
41	Diagonalized Image Sensor Pixels For Improved Effective Performance	Patent Application Serial No. 09/507,565	9903
42	Active Pixel Sensor With Fully-Depleted Burled Photoreceptor	Patent Application Serial No. 09/516,433	9904
43	An Analog Solution for Oversaturated Pixel Problem	Patent Application Serial No. 09/522,287	9905
44	Superposed Multi-Junction Color APS	Patent Application Serial No. 09/522,286	9906
45	Multi Junction APS with Dual Simultaneous Integration	Patent Application Serial No. 09/519,930	9907
46	A Novel Idea for a New Readout Structure of APS	Patent Application Serial No. 09/595,592	9908 9909 9910
47	Increasing Pixel Conversion Gain In CMOS Image Sensors	Patent Application Serial No. 09/553,980	9912
48	Dual Sensitivity Image Sensor	Patent Application Serial No. 09/596,757	9915
49	Layout Technique For Semiconductor Processing Using Stitching	Patent Application Serial No. 09/687,266	9916 9917
50	Active Pixel Sensor with Reduced Fixed Pattern Noise	Patent Application Serial No. 09/550,816	9918
51	Low Voltage Analog-To-Digital Converters With Internal Reference Voltage and Offset	Patent Application Serial No. 09/538,043	9922
52	Techniques to Increase Signal Dynamic Range in CMOS APS	Patent Application Serial No. 09/653,527	9923
53	Low Power Analog-To-Digital Conversion	Patent Application Serial No. 09/528,310	9926
54	Calibration Circuit for Successive Approximation ADC.	Patent Application Serial No. 09/746,565	9927
55	P-Type Reset/Readout Circuitry for Radiation Hard APS	Patent Application Serial No. 09/648,403	9929
56	Novel Lenses Using Coherent Optical Fiber Bundles	Patent Application Serial No. 09/745,854	9931
57	Dynamic Histogram Equalifization for High Dynamic Range Images	Patent Application Serial No. 09/778,151	9933
58	Compact Realization of 2-Reset Pointer Rolling Shutter in CMOS Sensor	Patent Application Serial No. 09/776,400	9935
59	Testing Of Solid-State Image Sensors	Patent Application Serial No. 09/692,742	9941
60	Adjustable Color-Plane-Pixel Integration Times for Asynchronous Pixel Saturation Avoidance	Patent Application Serial No. 09/761,868	9943
61	Improved Method for Flushed Reset	Patent Application Serial No. 09/858,748	9944
62	A New Frame-Shutter Pixel Structure with an Isolated Storage Node	Patent Application Serial No. 09/792,634	9945
63	Frame-Shuttering Scheme For Increased Frame Rate	Patent Application Serial No. 09/792,292	9946
64	Shared Photodetector Active Pixel	Patent Application Serial No. 09/881,639	9948
65	An Optimal Layout Technique for Row/Column Decoders to Reduce Number of Blocks	Patent Application Serial No. 09/860,031	9950
66	Microlenses With Spacking Elements To Increase An Effective Use of Substrate	Patent Application Serial No. 09/859,224	2004 2006
67	Pixel Optimization for Color	Patent Application Serial No. 09/922,507	2009

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	Photobit Patent or Provisional Application Title	Description/Comments	PB NTR #
8	Image Sensing System With Histogram Modification	Patent Application Serial No. 09/761,218	2012
9	Image Sensor Having Boostted Reset	Patent Application Serial No. 09/917,195	2014 2015
0	A High-Speed Analog-To-Digital Converter Using Multiple Staggered Successive	Provisional Patent	2016
•	Approximation Cells	Application	33.10
1	White Soot Reduction For CMOS Imaging	Serial No. 60/243,324 Provisional Patent	2017
1	Write Spot Reduction For Smoot imaging	Application	10
	Control of the Contro	Serial No. 60/243,328 Provisional Patent	2019
2	New Architecture For High-Speed ADC Using Multiple Successive Approximation Cells	Application	2019
		Serial No. 60/253,430	
3	CMOS Sensor With Dual Column Parallel Analog-To-Digital Converters	Provisional Patent Application	2020
		Serial No. 60/313,117	
4	Reference Voltage Circuit For Differential Analog-To-digital Converter (ADC)	Provisional Patent Application	2021
		Serial No. 60/247,401	
5	Pseudo Random Assignment To Remove FPN Of High-Speed ADC Using Multiple	Provisional Patent	2022
	Successive Approximation Cells	Application Serial No. 60/306,753	1
6	Frame-Scale Package	Provisional Patent	2024
-		Application	
		Serial No. 60/245,085	
7	Black-Level Compensation With On-Chip successive Approximation ADC	Provisional Patent	2025
		Application Serial No. 60/244,412	
8	An Improved Frame Shutter For CMOS APS	Provisional Patent	2026
-		Application Serial No. 60/243,899	ŀ
9	Wide Dynamic Range Operation For CMOS Sensor With Freeze-Frame Shutter	Provisional Patent	2027
•	Wile Sylamo range Specialist of Silico Stillor Will research and Silicon	Application Serial No. 60/243,898	
0	Freeze-Frame Shutter Imager With Increased Dynamic Range	Provisional Patent	2028
	President and the mager war moleaged by manie realige	Application Serial No. 60/242,215	
1	Power Optimization For Class A Amplifier With Variable Signal Gain By matching Of Unity	Provisional Patent	2029
•	Gain Bandwidth To the Demanded Gain	Application Serial No. 60/285,431	1
2	Dynamic Range Extension In Color CMOS Active Pixel Sensors	Provisional Patent	2030
•	Synamic range and an observation in construction	Application Serial No. 60/259,352	
3	Reducing Power Consumption And Noise In CMOS APS Sensor Through Block Read-Out	Patent Application	2031
		Serial No. 09/901,280	2400
14	Reducing KTC Noise In 3T and 5T CMOS APS	Provisional Patent Application	2102
		Serial No. 60/281,603	
35	Reference Voltage Stabilization In CMOS Sensors	Patent Application Filed 10/12/01 Serial No.	2109
		pending	
6	Low Power Differential Charge Mode Readout Circuit, Pipelined Gain Stage, And Pipelined ADC For CMOS Active Pixel Sensors	Provisional Patent Application	2110
	The tot chief their their controls	Serial No. 60/280,589	
87	A New Row Driver Circuit For CMOS APS Using Shared Row-Reset Pixels And Charge Pump Boosting Circuit	Patent Application Serial No. 09/876,848	2111
88	Temperature Sensor Using The Image Read-Out Signal Chain Of An Active Pixel Image	Provisional Patent	2112
	Sensor Having Double Sampling Of A Pixel Reset Voltage And A Pixel Image Voltage Level	Application	
39	Method For Optimizing Microlens/CFA/Pixel Cooperative Performance In Image Sensors	Serial No. 60/306,718 Provisional Patent	2113
	include to opinion in motionary returns of the opposite returnation in inage delibries	Application	
<u>~</u>	On-Chip ADC Test for Image Sensors	Serial No. 60/286,908 Provisional Patent	2115
90	On-Crip ADC Test for image Sensors	Application	2119
		Serial No. 60/313,122	1 2448
91	Variable Pixel Clock Electronic Shutter Control Algorithm For Corruption-Free Image Stream During Pixel Speed Changes	Provisional Patent Application	2118
	An Architecture For Increased Dynamic Range In CMOS APS	Serial No. 60/306,744 Provisional Patent	2119
92			

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Photobit Patent or Provisional Application Title	Description/Comments	PB NTR#
	Serial No. 60/607,514	

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